



The Solutions Network

Rochester, New York

Energy & Procurement: An Essential Partnership at NASA

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NASA's Vision

**To improve life here,
To extend life to there,
To find life beyond.**

The NASA Mission



*To understand and protect our home planet
To explore the Universe and search for life
To inspire the next generation of explorers*

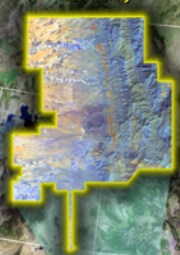
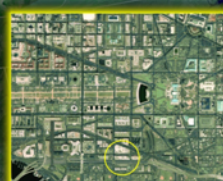
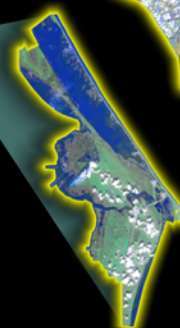
...as only NASA can.



The Vision for Space Exploration



- Implement a sustained and affordable human and robotic program to explore the solar system and beyond;
- Extend human presence across the solar system, starting with human return to the Moon by the year 2020, in preparation for human exploration of Mars and other destination;
- Develop the innovative technologies, knowledge, and infrastructures both to explore and to support decisions about the destinations for human exploration; and
- Promote international and commercial participation in exploration to further U.S. scientific, security, and economic interests.



Provided by the
Earth Science Applications Directorate
Stennis Space Center, Mississippi

Energy Efficiency: It's Not Rocket Science



- **Over the past 6 years, NASA awarded or participated in:**
 - 11 ESPC projects at Ames, Glenn, Goddard, Johnson, Kennedy/Cape Canaveral Air Station* and Wallops
 - 6 UESC projects at Dryden*, Goddard, Kennedy, and Stennis
 - ESPC also investigated at Kennedy, Langley and Marshall
- **These resulted in:**
 - \$41.4 million in energy and water improvements
 - \$5.4 million in annual savings
 - 7.67 year simple payback, on average
- **More contracts planned or underway:**
 - ESPC at Jet Propulsion lab, Goldstone and Johnson
 - UESC at Stennis

* Air Force contracts

What's Worked for NASA



- **Leverage EO 13123 Sec. 305 requirement for agency energy teams**
 - NASA Energy Efficiency Panel includes Procurement representative as voting member
- **Involve procurement during planning phase**
- **Become part of procurement processes and initiatives**
- **Leverage White House mandates**
- **Issue joint procurement/functional policy letters**
- **Include procurement in training**
- **Seek advise from procurement lawyers**
- **Consult DOD, DOE and GSA as subject matter experts**



A Few Success Stories



Johnson Space Center - Super-ESPC Centerwide Energy Upgrades



- T-8s & Electronic Ballasts
- Shutoff Timers
- Motion Sensors
- Energy monitoring & control system
- Chilled water retrofits
- Compressed air retrofits

Kennedy Space Center - UESC Commercial-Industrial Load Control Generator Project

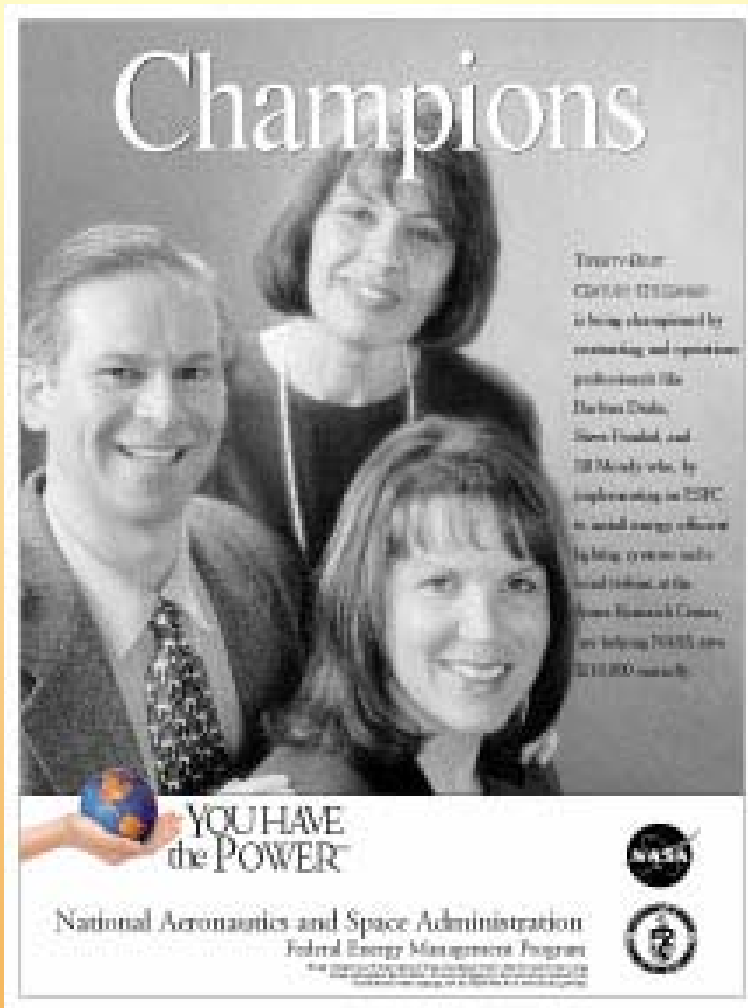


Goddard Space Flight Center Landfill Gas Project



- 10-year *utility service* contract awarded May 2000
- Landfill gas operations began Jan 2003
- Methane recovered from County landfill, treated, and transported to Center via new pipeline for direct combustion in central heating plant
- Supplies 90% of the Center's annual heating fuel requirement (approximately 270 billion BTU in 2003)
- Saves over \$1 million per year
- First Federal project under EPA's Landfill Gas Outreach Program
- Featured in March/April 2003 *FEMP Focus*
- Federal Energy & Water Management Award Winner

A Final Thought on Collaboration



“There are no problems we cannot solve together, and very few we can solve by ourselves.”

- Lyndon B. Johnson

Questions?



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http://www.hq.nasa.gov/office/codej/codeje/je_site/about_us/about_us.html



NASA Dryden Flight Research Center Photo Collection
<http://www.dfrc.nasa.gov/gallery/photo/index.html>

NASA Photo: ED01-0209-5 Date: July 14, 2001 Photo by: Nick Galante/PMRF
The Helios Prototype flying wing is shown near the Hawaiian islands of Niihau and Lehua during its first test flight on solar power from the U.S. Navy's Pacific Missile Range Facility.